

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An image processing apparatus for compressing an input image using a motion vector, the image processing apparatus comprising:

storing means for storing position information of each pixel of a first frame that is earlier in time than a second frame at an address corresponding to a feature value that is based on a value values of said each pixel or and a plurality of pixels pixel peripheral to said each pixel, the feature value representing a feature of said each pixel;

first detecting means for detecting the position information stored at an address corresponding to a feature value that is based on a value of the target pixel of which a motion vector is to be determined or a pixel peripheral to said of a target pixel of the second frame, the feature value representing said feature of said target pixel;

determining means for determining a centroid of candidate pixels of the first frame which are identified with the position information detected by the first detecting means; and

second detecting means for detecting a motion vector of the target pixel from the position of the target pixel and the centroid.

2. (Currently Amended) An image processing method for an image processing apparatus that compresses an input image using a motion vector, the method comprising:

~~a storing step of~~ storing position information of each pixel of a first frame that is earlier in time than a second frame at an address corresponding to a feature value that is based on a value values of said each pixel or and a plurality of pixels pixel peripheral to said each pixel, the feature value representing a feature of said each pixel;

~~a first detecting step of~~ detecting the position information stored at an address corresponding to a feature value that is based on a value of a target pixel of which a motion

vector is to be determined or a pixel peripheral to said of a target pixel of the second frame,  
the feature value representing said feature value of said target pixel;

~~a determining step of~~ determining a centroid of candidate pixels of the first frame  
which are identified with the position information detected ~~in the first detecting step~~; and  
~~a second detecting step of~~ detecting a motion vector of the target pixel from the  
position of the target pixel and the centroid.

3. (Currently Amended) A computer readable medium having stored thereon a  
computer-readable program which causes a computer to execute a method for compressing an  
input image using a motion vector is recorded, comprising:

~~a storage controlling step of~~ controlling storage of position information of each pixel  
of a first frame that is earlier in time than a second frame at an address corresponding to a  
feature value that is based on a value values of said each pixel ~~or and a plurality of pixels~~  
pixel peripheral to said each pixel, the feature value representing a feature of said each pixel;

~~a first detection controlling step of~~ controlling detection of the position information  
stored at an address corresponding to a feature value that is based on a value of a target pixel  
of which a motion vector is to be determined or a pixel peripheral to said of a target pixel of  
the second frame, the feature value representing said feature value of said target pixel;

~~a determination controlling step of~~ controlling determination of a centroid of  
candidate pixels of the first frame which are identified with the position information detected  
~~in the first detection controlling step~~; and

~~a second detection~~ controlling step of controlling detection of a motion vector of the  
target pixel from the position of the target pixel and the centroid.

4-14. (Canceled)